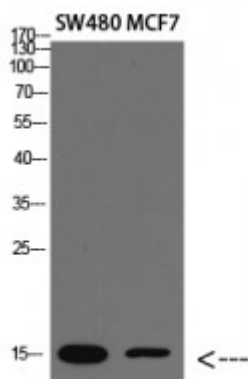


Anti-RPA14 antibody



Description	Rabbit polyclonal to RPA14.
Model	STJ98675
Host	Rabbit
Reactivity	Human, Mouse
Applications	ELISA, WB
Immunogen	Synthetic peptide from human RPA14 protein.
Immunogen Region	30-80 aa
Gene ID	6119
Gene Symbol	RPA3
Dilution range	WB 1:500-2000ELISA 1:5000-20000
Specificity	The antibody detects endogenous RPA14.
Purification	The antibody was affinity-purified from rabbit serum by affinity-chromatography using specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Replication protein A 14 kDa subunit RP-A p14 Replication factor A protein 3 RF-A protein 3
Molecular Weight	14kDa
Clonality	Polyclonal
Conjugation	Unconjugated

Isotype	IgG
Formulation	PBS, pH 7.4, containing 0.02% sodium azide as Preservative and 50% Glycerol.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:10291OMIM:179837
Alternative Names	Replication protein A 14 kDa subunit RP-A p14 Replication factor A protein 3 RF-A protein 3
Function	As part of the heterotrimeric replication protein A complex (RPA/RP-A), binds and stabilizes single-stranded DNA intermediates that form during DNA replication or upon DNA stress. It prevents their reannealing and in parallel, recruits and activates different proteins and complexes involved in DNA metabolism. Thereby, it plays an essential role both in DNA replication and the cellular response to DNA damage . In the cellular response to DNA damage, the RPA complex controls DNA repair and DNA damage checkpoint activation. Through recruitment of ATRIP activates the ATR kinase a master regulator of the DNA damage response . It is required for the recruitment of the DNA double-strand break repair factors RAD51 and RAD52 to chromatin, in response to DNA damage. Also recruits to sites of DNA damage proteins like XPA and XPG that are involved in nucleotide excision repair and is required for this mechanism of DNA repair . Plays also a role in base excision repair (BER), probably through interaction with UNG . Through RPA3 may activate CHEK1 and play a role in replication checkpoint control. Also recruits SMARCA1/HARP, which is involved in replication fork restart, to sites of DNA damage. May also play a role in telomere maintenance. RPA3 has its own single-stranded DNA-binding activity and may be responsible for polarity of the binding of the complex to DNA . As part of the alternative replication protein A complex, aRPA, binds single-stranded DNA and probably plays a role in DNA repair. Compared to the RPA2-containing, canonical RPA complex, may not support chromosomal DNA replication and cell cycle progression through S-phase. The aRPA may not promote efficient priming by DNA polymerase alpha but could support DNA synthesis by polymerase delta in presence of PCNA and replication factor C (RFC), the dual incision/excision reaction of nucleotide excision repair and RAD51-dependent strand exchange .
Cellular Localization	Nucleus.